Some recent observations on and additions to the flora of Western New York

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Since the publication of Mr. Charles Zenkert's "Flora of the Niagara Frontier Region," a Buffalo Society of Natural Science Bulletin, the exact status of the local flora has been much clarified. Local enthusiasts can now proceed with certainty when calling attention to new adventives or otherwise rare species in our midst.

Using this fine volume as a guide, supplemented by the "Flora of the Allegany State Park Region" by Homer D. House and William P. Alexander, which covers that region of Cattaraugus County, south of Salamanca, N. Y., a fairly complete list of Western New York plants is available.

After a perusal of the two above-mentioned volumes, I submit the following records which should be interesting to students of local conditions.

Erie County:-

Equisetum scirpoides Michx., the Sedge-like Horsetail, has not been located in this county heretofore. It was located on May 13, 1934 by Mr. Gerhard Blodorn at Lawton's Corners, N. Y.

Thuya occidentalis L., the Arbor Vitae, is not mentioned in Mr. Zenkert's flora as occurring in Erie County. It was quite a surprise to note a good-sized cedar swamp about fifteen miles from Buffalo, near the town of Alden. It is an altogether beautiful and interesting locality since Benzoin aestivale, Drosera rotundifolia, Rhamnus alnifolia, Cystopteris bulbifera, Aralia racemosa, Spiranthes cernua and Conioselinum chinense are all more or less closely associated with the restful green of the arbor vitae.

Allegany State Park:—

In this huge sixty-five thousand acre tract, one of two unglaciated areas in New York state, many plants are missing which are found a few miles north, in glaciated soil. However, there is quite an interesting flora despite the lack of boreal elements. Campanula rapunculoides L., the Creeping Bellwort, was recently located at the old Smith chemical works, in the park. Of course, it is an adventive, originally coming from Eurasia.

Claytonia virginica L., Cardamine Douglassii (Torr.) Britton., Carex pedunculata Muhl., and Erigeron pulchellus Michx., are four species which seem to have been overlooked in the compilation of the park flora list. This fact is readily explainable because few if any botanically-minded persons have visited the park during the very early spring.

Antennaria plantaginifolia (L.) Richards. was located during

June 1934 in two places in the park.

Equisetum limosum L., the Swamp Horsetail, may now be considered as a shore-line floral component of the artificial Red House Lake.

Arisaema Dracontium (L.) Schott., the Green Dragon, is interesting because, as far as the records go, it was not relocated, until recently, along the Allegany River since David F. Day found it in 1882. At the present time, we know it from a number of stations from Salamanca southward.

Acer saccharum Marsh. var. nigrum (Michx. f.) Britton., is represented by three or four known specimens in the park. Whereas the bark, lenticels, and the shape of the leaves are characteristic of the Black Maple, the pubescence on the leaves is not as dense as ordinarily encountered.

One of the big features of a game management plan, recently inaugurated in Allegany State Park, is the planting of game food plants in various parts of the area. In this connection, a number of species have been put out which are not native to this park and it is thought highly desirable to mention these to avoid confusion arising in anyone's mind when finding these strangers way back in some valley slashing or meadow.

These plants are: Juglans nigra L., Aronia arbutifolia (L.) Ell., Cornus stolonifera Michx., the variety incisifolia of Sambucus canadensis L., Betula alba L. var. papyrifera (Marsh.) Spach., and Cephalanthus occidentalis L.

Some herbaceous plants introduced on the nature trail, near the Administration Building and around the margins of Red House Lake are; Valeriana uliginosa (T. & G.) Rydb., Brasenia Shreberi Gmel., Mitella nuda L.; Parnassia caroliniana Michx., Viola renifolia Gray., Nymphaea advena Ait., Peltandra vir-

ginica (L.) Kunth., Zizania aquatica L., Cyperus esculentus L., Pontederia cordata L., Potamogeton natans L., Phragmites communis Trin., Vallisneria spiralis L., Nelumbo lutea (Willd.) Pers., and Frasera caroliniensis Walt.

Nyssa sylvatica Marsh., the Black or Sour Gum, is an infrequent component of the park flora. Recently a specimen was located on one of the ridges, so large that it is worth while to record its measurements. This tree is seventy-one and a half feet tall. I estimate that twenty feet of top is missing, having broken off at some time in the past, which would bring its actual height to ninety feet or better. The diameter at breast height is thirty-one and two-tenths inches. The ridges of the bark are four to five inches from trough to crest.

Western New York:-

Pinus rigida Mill., the pitch pine, has never been located in Western New York, according to the manuals. Lumbermen and old settlers, in the vicinity of Allegany State Park, were aware of this tree although they were unfamiliar with its name. From all reports, it occurred sparingly along the Allegany river and was cut along with the Hemlock and the White Pine, in the lumbering operations so widespread and so destructive here. At least two specimens are left; one near the Quaker Run nursery and the other up Crick's Run. In this connection it may be wise to mention the fact that an experimental planting of one thousand pitch pine transplants were set out in a slashing up Vater Hollow, in the Park.

Thelypteris marginalis (L.) Sw. var. elegans J. Robinson seems to be a new record also. A single plant, unusual because of its bifurcating fronds was located in the township of Clarence on November 20, 1933.

Two forms of the Christmas fern, *Polystichum acrostichoides* (Michx.) Schott., were located in the Allegany State Park during the summer of 1933. These are forma *lobatum* and forma *revolens*.

Epilobium angustifolium L. forma albiflorum (Dumort.) Haussk. has been collected in the Allegany State Park, for the first Western New York record. A search the following year failed to disclose any signs of it, which corroborates the theory that it reverts to the species and hence is not stable.

Dermatocarpon miniatum var. complicatum (Lightf.) Th. Fr., an aquatic lichen, may also be mentioned as a new record in this end of the state. It grows on submerged rocks in the Red House brook, just north of the beaver dam.

I should like to offer my sincere thanks to the many friends who have aided me in determining the above mentioned specimens. Especially helpful were Mr. John Parlin of Canton Point, Maine; Dr. Homer D. House of the New York State Museum; Dr. John Schaffner of Ohio State University; Rev. Fred Grey of Phillippi, West Virginia; Mr. Charles Weatherby of the Gray Herbarium, and Professor William P. Alexander of the Buffalo Museum of Science.

ALLEGANY STATE PARK RED HOUSE, NEW YORK